In the claims:

Claims 1-3 (Canceled)

Claims 4–7 (Withdrawn)

Claim 8 (Canceled)

Claims 9-11 (Withdrawn)

Claim 12. (New): A method for determining the presence or absence of one or more single nucleotide polymorphisms (SNP) in a CCR-2 gene, the method comprising:

(a) providing a nucleic acid sample from a human identified as having or at risk for having a CCR-2-mediated disease, wherein the sample comprises nucleotides at one or more of positions 2385 and 2649 of EMBL ACCESSION NO. U80924, and positions 40915, 41047, 41058, 41507, 41768, 42401, 42598, 42673, 42723, 42874, and 43018 of EMBL ACCESSION NO. U95626; and

(b) testing the sample to determine the identity of the nucleotide at the one or more positions.

Claim 13 (New): The method of claim 12, wherein the nucleic acid sample comprises a fragment of a CCR-2 DNA.

Claim 14 (New): The method of claim 12, wherein the human is diagnosed as having or at risk for having rheumatoid arthritis, cardiovascular disease, glomerular nephritides, lung fibrosis, restenosis, alveolitis, asthma, atherosclerosis, psoriasis, delayed-type hypersensitivity reactions of the skin, inflammatory bowel disease, multiple sclerosis, brain trauma, stroke, reperfusion injury, ischemia, myocardial infarction, HIV-1 infection, or transplant rejection.

Claim 15 (New): The method of claim 12, wherein step (b) comprises performing an ALEX™, COPS, Taqman™, or Molecular Beacons technique, or a restriction based PCR or FRET technique.

Claim 16 (New): The method of claim 12, wherein step (b) comprises performing an ARMS™ or RFLP technique.

Claim 17 (New): The method of claim 12, further comprising:

(c) determining that the nucleotide at position 42723 of EMBL ACCESSION NO. U95626 is an A.

Claim 18 (New): The method of claim 12, further comprising:

(c) determining that the nucleotide at position 42723 of EMBL ACCESSION NO. U95626 is not a C.

Claim 19 (New): A method for determining the presence or absence of one or more SNPs in a CCR-2 gene, the method comprising:

(a) providing a nucleic acid sample from a human, wherein the sample comprises nucleotides at one or more of positions 2385 and 2649 of EMBL ACCESSION NO. U80924, and positions 40915, 41047, 41058, 41507, 41768, 42401, 42598, 42673, 42723, 42874, and 43018 of EMBL ACCESSION NO. U95626; and

(b) determining the identity of the nucleotide at the one or more positions by using a technique selected from the group consisting of an ARMS™, ALEX™, COPS, Taqman™, Molecular Beacons, or RFLP technique, or a restriction site-based PCR or FRET technique.

Claim 20 (New): The method of claim 19, wherein the nucleic acid sample comprises a fragment of a CCR-2 DNA.

Claim 21 (New): A method for determining the presence or absence of one or more SNPs in a CCR-2 gene, the method comprising:

(a) providing a nucleic acid sample from a human identified as having or at risk for having rheumatoid arthritis, cardiovascular disease, glomerular nephritides, lung fibrosis, restenosis, alveolitis, asthma, atherosclerosis, psoriasis, delayed-type hypersensitivity reactions of the skin, inflammatory bowel disease, multiple sclerosis, brain trauma, stroke, reperfusion injury, ischemia, myocardial infarction, HIV-1 infection, or transplant rejection, wherein the sample comprises nucleotides at one or more of positions 2385 and 2649 of EMBL ACCESSION NO. U80924, and positions 40915, 41047, 41058, 41507, 41768, 42401, 42598, 42673, 42723, 42874, and 43018 of EMBL ACCESSION NO. U95626, and

(b) testing the sample to determine the identity of the nucleotide at the one or more position(s) by using a technique selected from the group consisting of an ARMS™ or ALEX™ assay, COPS, Taqman™, Molecular Beacons, RFLP, or a restriction site-based PCR or FRET technique.

Claim 22 (New): A method for determining the presence or absence of a SNP in a CCR-2 gene in a nucleic acid sample of a human, the method comprising determining that the nucleotide in the sample corresponding to position 42723 of EMBL ACCESSION NO. U95626 is an A.

Claim 23 (New): A method for determining the presence or absence of a SNP in a CCR-2 gene in a nucleic acid sample of a human, the method comprising determining that the nucleotide in the sample corresponding to position 42723 of EMBL ACCESSION NO. U95626 is not a C.

Claim 24 (New): A method for characterizing the genotype of a human diagnosed as having a CCR-2-mediated disease, or as being at risk for having a CCR-2-mediated disease, the method comprising:

(a) providing a nucleic acid sample from the human, wherein the sample comprises nucleotides at one or more positions corresponding to

positions 2385 and 2649 in the coding sequence of the CCR-2 gene as defined by the positions in EMBL ACCESSION NO: U80924; and

positions 40915, 41047, 41058, 41507, 41768, 42401, 42598, 42673, 42723, 42874, and 43018 in the promoter sequence of the CCR-2 gene as defined by the positions in EMBL ACCESSION NO. U95626;

(b) testing the sample to determine the identity of the nucleotide(s) at the one or more positions; and

(c) recording the determined identity of the nucleotide(s) in a print- or machine-readable medium.

Claim 25 (New): A method for characterizing the genotype of a human diagnosed as having rheumatoid arthritis, cardiovascular disease, glomerular nephritides, lung fibrosis, restenosis, alveolitis, asthma, atherosclerosis, psoriasis, delayed-type hypersensitivity reactions of the skin, inflammatory bowel disease, multiple sclerosis, brain trauma, stroke, reperfusion injury, ischemia, myocardial infarction, HIV-1 infection, or transplant rejection, the method comprising:

(a) providing a nucleic acid sample from the human, wherein the sample comprises a nucleotide at one or more positions corresponding to

positions 2385 and 2649 in the coding sequence of the CCR-2 gene as defined by the positions in EMBL ACCESSION NO: U80924; and

positions 40915, 41047, 41058, 41507, 41768, 42401, 42598, 42673, 42723, 42874, and 43018 in the promoter sequence of the CCR-2 gene as defined by the positions in EMBL ACCESSION NO. U95626;

(b) testing the sample to determine the identity of the nucleotide(s) at the one or more positions; and

(c) recording the determined identity of the nucleotide(s) in a print- or machine-readable medium.

Claim 26 (New): A method for treating a human comprising:

(a) identifying a human diagnosed as having or at risk for having rheumatoid arthritis, cardiovascular disease, glomerular nephritides, lung fibrosis, restenosis, alveolitis, asthma, atherosclerosis, psoriasis, delayed-type hypersensitivity reactions of the skin, inflammatory bowel disease, multiple sclerosis, brain trauma, stroke, reperfusion injury, ischemia, myocardial infarction, HIV-1 infection, or transplant rejection;

(b) providing a nucleic acid sample from the human, wherein the sample comprises nucleotides at positions 2385 and 2649 of EMBL ACCESSION NO. U80924, and positions 40915, 41047, 41058, 41507, 41768, 42401, 42598, 42673, 42723, 42874, and 43018 of EMBL ACCESSION NO. U95626;

(c) testing the sample to determine the identity of the nucleotide(s) at each of the positions; and

(d) depending on whether the human has a C or a T at the position corresponding to position 2385 of EMBL ACCESSION NO. U80924;

a G or an A at the position corresponding to position 2649 of EMBL ACCESSION NO. U80924;

an A or a T at the position corresponding to position 40915 of EMBL ACCESSION NO. U95626;

an insertion of ACA at the position corresponding to position 41047 of EMBL ACCESSION NO. U95626;

a C or an A at the position corresponding to position 41058 of EMBL ACCESSION NO. U95626;

a C or an A at the position corresponding to position 41507 of EMBL ACCESSION NO. U95626;

an A or a T at the position corresponding to position 41768 of EMBL ACCESSION NO. U95626;

an A or a G at the position corresponding to position 42401 of EMBL ACCESSION NO. U95626;

a T inserted at the position corresponding to position 42598 of EMBL ACCESSION NO. U95626;

a G or an A at the position corresponding to position 42673 of EMBL ACCESSION NO. U95626;

an A or a C at the position corresponding to position 42723 of EMBL ACCESSION NO. U95626;

an A or a G at the position corresponding to position 42874 of EMBL ACCESSION NO. U95626; or

an A or a T at the position corresponding to position 43018 of EMBL ACCESSION NO. U95626,

determining an appropriate type and amount of a therapeutic agent to be administered to the human.

Claim 27 (New): The method of Claim 26, wherein the therapeutic agent is a CCR-2 ligand antagonist.

Claim 28 (New): A method for determining the presence or absence of a SNP in a CCR-2 gene, the method comprising:

(a) providing a nucleic acid sample from a human identified as having or at risk for having a CCR-2-mediated disease, wherein the sample comprises a nucleotide at one or more of the following positions:

positions 2385 and 2649 in the coding sequence of the CCR-2 gene as defined by the positions in EMBL ACCESSION NO: U80924; and

positions 40915, 41047, 41058, 41507, 41768, 42401, 42598, 42673, 42723, 42874, and 43018 in the promoter sequence of the CCR-2 gene as defined by the positions in EMBL ACCESSION NO. U95626; and

(b) testing the sample to determine the identities of the nucleotides at all 13 positions.

Claim 29 (New): A method for characterizing the genotype of a human diagnosed as having a CCR-2-mediated disease, or as being at risk for having a CCR-2-mediated disease, the method comprising:

(a) providing a nucleic acid sample from a human identified as having or at risk for having a CCR-2-mediated disease, wherein the sample comprises a nucleotide at position

42723 as defined by the position in EMBL ACCESSION NO. U95626 and a nucleotide at at least one of the following additional positions:

positions 2385 and 2649 in the coding sequence of the CCR-2 gene as defined by the positions in EMBL ACCESSION NO: U80924; and

positions 40915, 41047, 41058, 41507, 41768, 42401, 42598, 42673, 42874, and 43018 in the promoter sequence of the CCR-2 gene as defined by the positions in EMBL ACCESSION NO. U95626;

(b) testing the sample to determine the identity of the nucleotide at position 42723 of EMBL ACCESSION NO. U95626 and the identity of the nucleotide(s) at the at least one additional position; and

(c) recording the determined identities of the nucleotides in a print- or machine-readable medium.

Claim 30 (New): A method for determining the presence or absence of a SNP in a CCR-2 gene, the method comprising:

(a) providing a nucleic acid sample from a human identified as having or at risk for having a CCR-2-mediated disease, wherein the sample comprises a nucleotide at a position corresponding to position 42723 of EMBL ACCESSION NO. U95626 and a nucleotide at at least one additional position selected from the group consisting of:

positions 2385 and 2649 in the coding sequence of the CCR-2 gene as defined by the positions in EMBL ACCESSION NO: U80924; and

positions 40915, 41047, 41058, 41507, 41768, 42401, 42598, 42673, 42874, and 43018 in the promoter sequence of the CCR-2 gene as defined by the positions in EMBL ACCESSION NO. U95626, and

(b) testing the sample to determine the identities of the nucleotide at position 42723 of EMBL ACCESSION NO. U95626 and of the nucleotide at the at least one additional position.